ERIOPHYID MITES FOUND ON FLORIDA CITRUS (ERIOPHYIDAE: ACARINA)

H. A. DENMARK²

INTRODUCTION: THREE ERIOPHYID MITES OCCUR ON CITRUS IN FLORIDA. THE CITRUS RUST MITE, PHYLLO-COPTRUTA OLEIVORA (ASHMEAD), WAS DESCRIBED FROM FLORIDA IN 1878. THE CITRUS BUD MITE, ACERIA SHELDONI (EWING), WAS FIRST FOUND IN FLORIDA BY H. H. ATTIAH IN 1959 ON SWEET ORANGE IN SOUTH MIAMI. A PINK CITRUS RUST MITE, ACULOPS PELEKASSI (KEIFER), WAS FIRST DISCOVERED IN FLORIDA BY DR. A. K. BURDITT, JR. ON CALAMONDIN AT ORLANDO IN 1961.

DISTRIBUTION: THE CITRUS RUST MITE PROBABLY OCCURS IN NEARLY EVERY CITRUS GROWING AREA IN THE WORLD. IN FLORIDA IT IS FOUND THROUGHOUT THE CITRUS BELT. THE CITRUS BUD MITE IS FOUND IN AUSTRALIA, JAVA, SICILY, SOUTH AMERICA AND THE UNITED STATES IN CALIFORNIA, FLORIDA AND HAWAIIAN ISLANDS. IN FLORIDA IT IS FOUND ALONG THE EAST COAST AT MIAMI AND FT. PIERCE. THE PINK CITRUS RUST MITE IS KNOWN TO OCCUR IN GREECE, ITALY, JAPAN, SICILY AND THAILAND. IN FLORIDA IT IS FOUND IN THE FOLLOWING COUNTIES: ALACHUA, BAKER, CITRUS, DESOTO, HARDEE, HILLSBOROUGH, LAKE, MARION, ORANGE, PINELLAS, PUTNAM, SEMINOLE, VOLUSIA.

HOST: ALL SPECIES ARE FOUND ON CITRUS SPP. AND, WITH THE EXCEPTION OF THE CITRUS BUD MITE, ON PONCIRUS TRIFOLIATE.

ECONOMIC IMPORTANCE: CITRUS RUST MITE IS ONE OF THE MAJOR CITRUS PESTS IN FLORIDA. IT DAMAGES THE LEAVES AND RUSSETS THE FRUIT (FIG. 1). THIS MITE IS USUALLY FOUND ON THE UNDERSURFACE OF MATURE LEAVES, ON STEMS, AND THE PROTECTED SIDE OF FRUIT. THE CITRUS BUD MITE PROBABLY HAS BEEN IN FLORIDA FOR MANY YEARS ALONG THE COASTAL AREAS. APPARENTLY IT CAUSES LITTLE DAMAGE TO FLORIDA CITRUS, BUT DOES CAUSE DAMAGE TO CITRUS BUDS (FIG. 2), DEFORMING THE FRUIT AND LEAVES IN OTHER AREAS. IT HAS BEEN REPORTED ON LEMON AND SWEET ORANGE IN CALIFORNIA AND ON SWEET ORANGE, GRAPEFRUIT, AND LEMON IN FLORIDA. THE PINK CITRUS RUST MITE WAS FOUND IN FLORIDA RECENTLY BUT PROBABLY HAS BEEN HERE MUCH LONGER. IT USUALLY FEEDS ON THE UPPERSURFACE OF NEW LEAVES, AND HIGH POPULATIONS DEFORM LEAVES (FIG. 3). THIS MITE SHOWS A POSITIVE RESPONSE TO LIGHT.

DESCRIPTION: THE COLOR OF THE CITRUS RUST MITE (FIG. 4A) IS USUALLY A LEMON YELLOW TO BROWN. DISEASED SPECIMENS MAY BE PINK OR DARK BROWN. THE CITRUS BUD MITE (FIG. 5A, AFTER KEIFER) IS SLIGHTLY SMALLER THAN THE CITRUS RUST MITE AND IS LIGHT YELLOW IN COLOR. THE PINK CITRUS RUST MITE (FIG. 6A) IS APPROXIMATELY THE SAME SIZE AS THE CITRUS RUST MITE AND VARIES IN COLOR. IT MAY BE WHITISH, LIGHT YELLOW, LIGHT PINK TO REDDISH.

KEY TO MOUNTED SPECIMENS

- 3. FEATHERCLAW 5-RAYED (FIG. 4B). PHYLLOCOPTRUTA OLE IVORA (ASHM.)

| DAMAGE | | | ADULT STAGE | | | FEATHERCLAW | | |
|-------------------|----------------|--------------------|---------------------|--------------------|--------------------------|---|--------------------|--------------------------|
| RUSSETED FRUIT | MULTI- BUDS | DEFORMED LEAVES | CITRUS RUST MITE | CITRUS BUD MITE | PINK CITRUS RUST MITE | CITRUS RUST MITE | CITRUS BUD MITE | PINK CITRUS RUST MITE |
| | | | | | | See Age of the Age of | | Mar |
| Fig. 1 | Fig. 2 | Fig. 3 | FIG. 4A | FIG. 5A | FIG. 6A | Fig. 4B | Fig. 58 | F1G. 6B |

¹ CONTRIBUTION No. 27, BUREAU OF ENTOMOLOGY 2 CHIEF OF ENTOMOLOGY, DIVISION OF PLANT INDUSTRY, P. O. Box 1269, GAINESVILLE 32602